

Vermont Public Service Board Standard Application Form to Rule 5.500

STANDARD APPLICATION FOR INTERCONNECTION OF GENERATION RESOURCES IN PARALLEL TO THE ELECTRIC SYSTEM OF: _____

(Name of Utility)

Shaded area to be completed by Interconnecting Utility

Interconnecting Utility: _____
Interconnecting Utility's Designated Contact Person: _____
Interconnecting Utility's Address: _____
Interconnecting Utility's Fax Number: _____
Interconnecting Utility's E-Mail Address: _____
Substation _____ Circuit _____ ☐ Distribution ☐ Transmission

Preamble and Instructions:

An owner of a generation resource who requests interconnection to a State regulated distribution or transmission facility must submit an application to the Interconnecting Utility. An application is accepted as complete when it provides all applicable information required. There is a **\$300.00** Application fee that must be submitted to the Interconnecting Utility along with the Application.

Section 1. Applicant Information

A. Legal Name of Interconnecting Applicant (or, if an Individual, Individual's Name)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Facility Location: _____
(Facility E-911 address)

Telephone (Daytime): (____) ____ - ____ (Alternate): (____) ____ - ____

Fax Number: _____ E-Mail Address: _____

B. Alternative Contact Information (if different from Applicant)

Contact Name: _____

Contact Title: _____

Address: _____

Telephone (Daytime): (____) ____ - ____ (Alternate): (____) ____ - ____

Fax Number: _____ E-Mail Address: _____

C. Will the Generation Resource be used for any of the following:

To supply power to internal loads (other than the station itself)? ☐ Yes ☐ No

To participate in the SPEED Standard Offer Program? ☐ Yes ☐ No

D. For generators installed at locations with existing electric service:

(Local Electric Service Provider*) _____

(Existing Account Number*) _____

E. Additional Information

Requested Point of Interconnection: _____

Interconnection Applicant's requested in-service date: _____

Section 2. Generator Qualifications

All data applicable only to the generator facility, NOT the necessary interconnection facilities

Energy source:

☐ Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐ Fuel Oil ☐ Other _____
(state type)

Type of Generator:

☐ Synchronous ☐ Induction ☐ Inverter (DC Generator or Solar)

Generator Manufacturer: _____

Generator Model Name & Number: _____

Generator Nameplate Rating: _____ kW (Total if multiple units)

Generator Nameplate kVAR: _____

Applicant or Customer-Site Load: _____ kW (if none, so state)

Typical Reactive Load (if known) _____

Maximum Physical Export Capability Requested: _____ kW

Section 3. Generator Technical Information

a. *Induction or Synchronous Generators (for rotating machines)*

Rated Power Factor Leading: _____

Rated Power Factor Lagging: _____

List of Adjustable Set points for the protective equipment or software: _____

Direct Axis Transient Reactance, X'd: _____ P.U.

Direct Axis Unsaturated Transient Reactance, X'di: _____ P.U.

Direct Axis Subtransient Reactance, X"d: _____ P.U.

Generator Saturation Constant (1.0): _____

Generation Saturation Constant (1.2): _____

Negative Sequence Reactance: _____ P.U.

Zero Sequence Reactance: _____ P.U.

kVA Base: _____

RPM Frequency: _____

*Field Volts _____

*Field Amperes _____

*Motoring Power (kW) _____

*Neutral Grounding Resistor (If Applicable) _____

*I22t or K (Heating Time Constant) _____

*Rotor Resistance _____

*Stator Resistance *Stator Reactance _____

*Rotor Reactance *Magnetizing Reactance _____

*Short Circuit Reactance _____

*Exciting Current _____

*Temperature Rise _____

*Frame Size *Design Letter _____

*Reactive Power Required In Vars (No Load) _____

*Reactive Power Required In Vars (Full Load) _____

*Total Rotating Inertia, H: _____ Per Unit on kVA Base

b. For Wind Turbines

Total Number of turbines to be interconnected pursuant to this application: _____

Height to blade tip : _____ Blade diameter _____

Quantity of Turbines _____ Size (KW) Each _____

c. For Solar or DC sources

Inverter Manufacturer, Model Name & Number : _____

Quantity of Inverters _____ Size KW Each _____

Panel Manufacturer, Model Name & Number: _____

Quantity of panels _____ Size (Watts) Each _____

Inverters are UL1741 listed ☐ Yes ☐ No

Section 4. Interconnection Equipment Technical Data *(for generation over 20 KW)*

Will a transformer (GSU) be used between the generator and the point of interconnection?

☐ Yes ☐ No

Will the transformer be provided by Interconnection Applicant?

☐ Yes ☐ No

Is the Transformer three phase?

☐ Yes ☐ No

Is the Transformer pad mounted or Pole mounted?

☐ Pad ☐ Pole

Transformer Size: _____ kVA Impedance: _____ % on _____ kVA Base

Interconnection Voltage (GSU Data)

Transformer Primary: _____ Volts ☐ Single Phase ☐ Delta ☐ Wye ☐ Grounded Wye

Transformer Secondary: _____ Volts ☐ Single Phase ☐ Delta ☐ Wye ☐ Grounded Wye

Other Transformer information _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____ Load Rating: _____ Interrupting Rating: _____

Trip Speed: _____

Current Transformer (CT) Data (if applicable):

Manufacturer: _____ Type: _____ Accuracy Class: _____ Ratio: _____

Potential Transformer Data (if applicable):

Manufacturer: _____ Type: _____ Accuracy Class: _____ Ratio: _____

Section 5. General Site Information

- a. Enclose copy of site electrical One-Line Diagrams showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes.

[Note: This one-line diagram must be signed and stamped by a licensed Professional Engineer if the generating facility is larger than 150 kW.]

- b. Enclose copy of any site documentation that describes and details the operation of the protection and control schemes.
- c. Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).
- d. Enclose copy of any site documentation that indicates the precise physical location of the proposed generating facility (e.g. USGS topographic map or other diagram).

Section 6. Check List: Required Fee and Enclosures

Is an application fee enclosed? ☐ Yes
Are One-Line Diagrams enclosed? ☐ Yes
Is site documentation enclosed? ☐ Yes
Are schematic drawings enclosed? ☐ Yes ☐ No
Are site maps enclosed? ☐ Yes

Section 7. Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct.

Signature of Applicant: _____ Date: _____